

I CLAIM:

Pub A1 > 1. A method for identifying a failed device in a computer, said method comprising steps of:

providing a basic input-output system (BIOS) memory having a plurality of memory locations containing data values representing a series of computer program instructions for testing a device in said computer and detecting an error contained in said BIOS memory, wherein a predetermined one of said memory locations contains an error detection value based on said data value at the remaining memory locations of said BIOS memory;

detecting a first device in said computer to determine whether said first device is failed;

providing a single luminescent display which is mounted on the casing of said computer; and

if said first device is detected to be failed, blinking said single luminescent display ON and OFF at a first frequency.

2. The method of claim 1 wherein the step of detecting said first device in said computer comprises a step of identifying a type and an identification of said first device in said computer by means of said BIOS memory.

3. The method of claim 1 wherein the step of detecting said first device in said computer comprises a step of :

analyzing the data values and said error detection value at said predetermined memory location in said BIOS memory to detect whether an error is contained within said BIOS memory.

4. The method of claim 1 further comprising the steps of:

providing a sound playing device; and

if said first device is detected to be failed, driving said sound playing device to beep at said first frequency.

5. The method of claim 1 further comprising the steps of:

detecting a second device in said computer to determine whether said second device is failed; and

if said second device is detected to be failed, blinking said single luminescent display ON and OFF at a second frequency different from said first frequency.

6. The method of claim 1 further comprising the step of:

if said second device is detected to contain an error, driving said sound playing device to beep at said second frequency.

7. The method of claim 5 wherein the step of detecting said second device in said computer comprises a step of identifying a type and an identification of said second device in said computer by means of said BIOS memory.

8. The method of claim 5 wherein the step of detecting said second device in said computer comprises a step of:

analyzing the data values and said error detection value at said predetermined memory location in said BIOS memory to detect whether an error is contained within said BIOS memory.

9. The method of claim 5 further comprising the steps of:

detecting a third device in said computer to determine whether said third device is failed; and

if said third device is detected to be failed, blinking said single luminescent display ON and OFF at a third frequency different from said first frequency and said second frequency.

10. The method of claim 5 further comprising a step of:

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if said third device is detected to contain an error, driving said sound playing device to beep at said third frequency.

11. The method of claim 9 wherein the step of detecting said third device in said computer comprises a step of identifying a type and an identification of said third device in said computer by means of said BIOS memory.

12. The method of claim 9 wherein the step of detecting said third device in said computer comprises a step of:

analyzing the data values and said error detection value at said predetermined memory location in said BIOS memory to detect whether an error is contained within said BIOS memory.


13. The method of claim 1 wherein said error detection value at said predetermined memory location in said BIOS memory contains a checksum value.

14. A device for displaying a message indicative of a failed device in a computer, comprising:

a single luminescent display which is mounted on the casing of said computer and is operable to blink at multiple frequencies;

a basic input-output system (BIOS) memory having a plurality of memory locations containing data values representing a series of computer program instructions for testing a hardware device in said computer, and sending a control signal according to the result of testing said hardware device; and

a decoding element receiving said control signal and outputs a driving signal to enable said single luminescent display to blink at a frequency associated with said control signal received thereof.

Pub AI  15. The device of claim 14 wherein said single luminescent display comprises a light-emitting diode mounted on the casing of said computer provided for indicating the power status of said computer.

16. The device of claim 14 further comprising a serial interface provided for communication between said BIOS memory and said hardware device.

17. The device of claim 16 wherein said serial interface comprises a system management bus interface.

18. The device of claim 14 wherein said decoding element includes an input/output port for transmitting said driving signal to said single luminescent display.

19. The device of claim 14 wherein said decoding element comprises a bridge chip.

20. The device of claim 14 further comprising a sound playing device which is drivable to beep at a frequency associated with said control signal received thereof.